## Amendments to the Specification

Please replace the current sequence listing with the paper copy of the sequence listing submitted herewith.

Please replace the paragraph at page 6, lines 18-25, with the following paragraph:

Brief Description of the Drawings.

Figure 1 illustrates the construction of the suicide/transformation vector pGIT5.

Figure 2 shows the primers used for the amplification of the *aroB* gene from *Neisseria* meningitidis and construction of an *aroB* deletion mutant. The primers sequences shown are aroB1 (SEQ ID NO: 3), aroB2 (SEQ ID NO: 4), aroB3 (SEQ ID NO: 20) and aroB4 (SEQ ID NO: 6).

Figure 3(i)-3(iv) illustrates illustrate the construction of an aroB deletion mutant.

Figure 4 illustrates the construction of an asd mutant.

Figure 5A-5D illustrates illustrate the production of a fur/lac fusion strain.

Please replace the paragraph at page 23, lines 17 through page 24, line 30 with the following paragraph:

## **PRIMERS**

Name - Gene - Sequence - Direction - Enzyme

T G

aro1 – aroA – GGAATTCGATTCCGATGATATCCGTCATATG – forward – EcoRI (SEQ ID NO: 1)

CAG C CG G C C

C

Aro2 – aroA – GGAATTCATCAGGAATATGATTCATATCCAT – reverse – EcoRI (SEQ ID NO: 2)

G G G G G

AroB1 - aroB - GCAGATGCCCGAAGCTTTTTATAGCGG (SEQ ID NO: 3)

AroB2 – aroB – GAGCTCGGTACCGTGCAGCGTGTCCAGATCTGCAAG (SEQ ID NO: 4)

AroB3 – aroB – CATAAAGGGATCCTGGTTCGCCAG (SEQ ID NO: 5)

AroB4 – aroB – GGTACCGAGCTCCAAATGAAGGCAGATCTCGTCGCCC (SEQ ID NO:6)

AsdA – asd – ACAATGAAAGTAGAATTCGTCGGCTGG – forward – EcoRI (SEQ ID NO: 7)

 $\mathbf{C}$ 

AsdB – asd – GAATGCGGAGATGAATTCGCCGCCCAT – reverse – EcoRI (SEQ ID NO: 8)

G C T

FurD - fur - CCCTGCTCACGTCGACCAG - reverse - SalI (SEQ ID NO: 9)

FurE - fur - ACGCGGTCGACGCTGCACG - forward - SalI (SEQ ID NO: 10)

FurF – fur – AATACGCAATTGGATCCTGCTTGC – reverse – BamHI (SEQ ID NO: 11)

FurG – fur – GATATTGAATCATATGGAAAAATTC – forward – NdeI (SEQ ID NO: 12)

galEA - galE1 - GTGATTTTGGATAAGCTTTGCAATTCC - forward - HindIII (SEQ ID NO: 13)

galEB - galE1 - CCAGCGCCATGAAGCTTCCATCAT - reverse - HindIII (SEQ ID NO: 14)

lac1 - lac1 - GACAGGATCCAATGGTGCAAAACC - forward - BamHI (SEQ ID NO: 15)

lac3 - lacZ - AATCATGGTCATATGTGTTTCCTG - reverse - NdeI (SEQ ID NO: 16)

recA1 - recA - CGGAATTCGGTCTGAAGCGGATG - forward - EcoRI (SEQ ID NO: 17)

recA2 - recA - CGCAGCAGGAATTCCCGTTTATCG - reverse - EcoRI (SEQ ID NO: 18)

Please replace the paragraph at page 25, lines 22-29, with the following paragraph:

## Vectors

Vectors used for transformation of *N. meningitidis* include uptake sequences to assist with uptake of the vector by the bacterium. These sequences comprise a 10-mer inverted repeat (Goodman and Socca, Proc. Natl. Acad. Sci. (1988) **85**:6982-6986). The nucleotide sequence of the uptake sequence used is shown below, with the inverted repeats underlined in bold.

GGGCCCGGGCTGCAGCCGTCTGAAATGCATTTCAGACGGCTGCAGCCCGGGCCC
(SEQ ID NO: 19)